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On maximal quantity of particles of one color in analogs of multicolor urn schemes

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Abstract

© 2017, Allerton Press, Inc.We deal with analogs of multicolor urn schemes such that the number of particles is not more than a given number. We introduce conditions which provide the convergence of random variables which is the maximal number of taken particles of the same color to a random variable that has values zero and one. We prove this convergence in the case when a number of taken particles is not more than a fixed number and number of colors converges to infinity. We also consider the case when the number of taken particles converges to infinity.

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Keywords

allocation of particles to cells, binomial random variable, limit theorem, Poisson random variable, urn scheme

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